

Chapter 27 Review and Notes: Kingdom Monera

Prokaryotic Structure, Function, Reproduction, and Metabolism

A. Shapes:

B. Sizes:

C. Capsules

D. Cell Wall Function and general description

Gram Stain:

Gram + Traits(structure – draw diagram):

Gram – Traits (structure – draw diagram):

E. Prokaryotic Motility

F. Cellular/Genomic Organization

G. Reproduction

binary fission

transformation

conjugation

transduction

H: Endospores

I: Nutritional and Metabolic Diversity

Autotrophs

Photoautotrophs

Chemoautotrophs

Heterotrophs

Photoheterotrophs

Chemoheterotrophs

J: Oxygen Metabolism

Obligate Aerobes

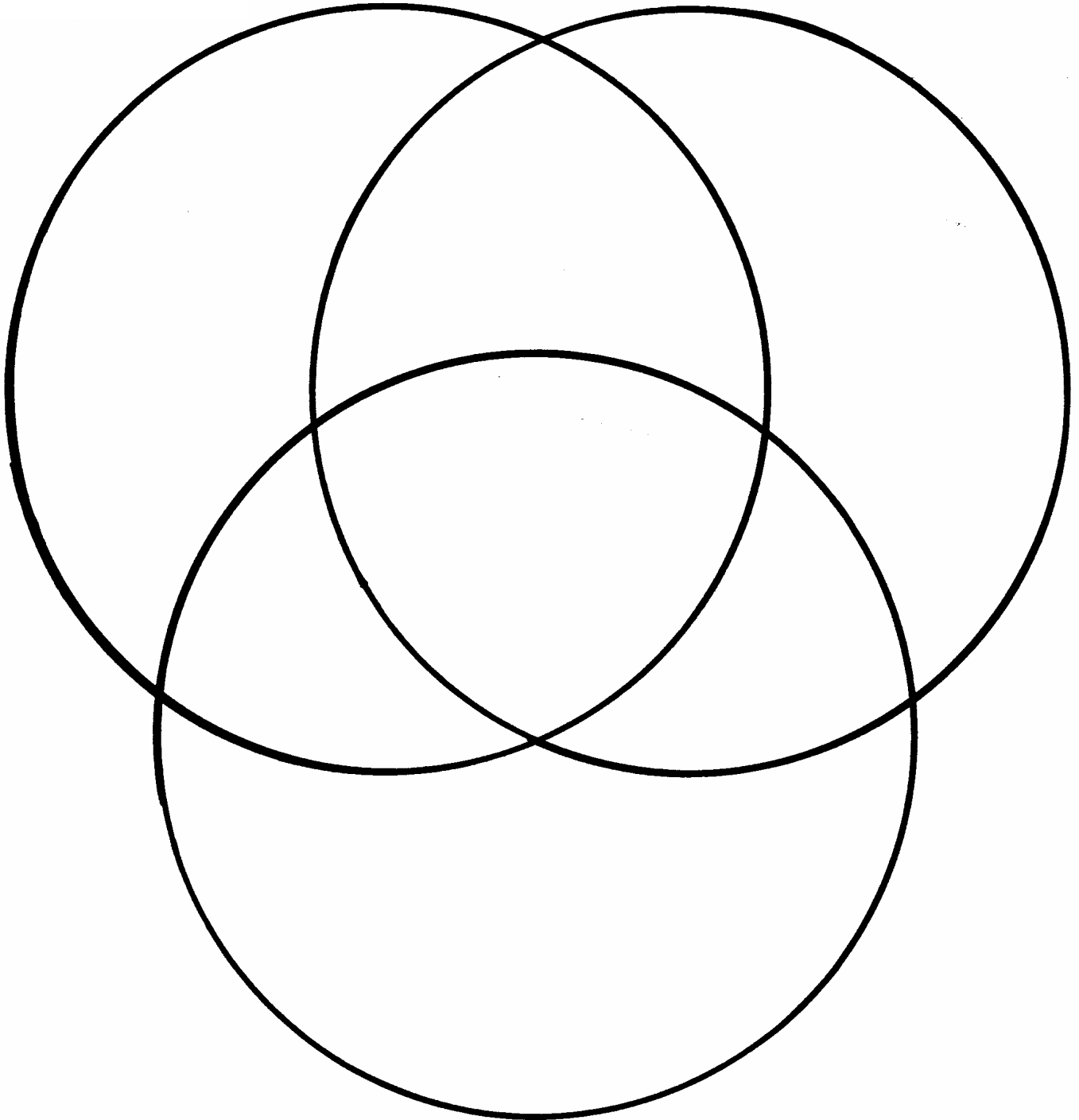
Obligate Anaerobes

Facultative Anaerobes

1. Explain the organization of the three-domain classification system. In your explanation, you should compare/contrast the three domains in the Venn Diagram below by scanning through information on Kingdom Monera in Chapter 27. Table 27.2 may also be of some help to you.

Archaeobacteria

Eukarya



Eubacteria

2. It is hypothesized that the domain Archaea is more closely related to domain Eukarya than it is to the domain eubacteria. What facts support this hypothesis? (Look at your Venn Diagram to help you!)

3. Study Guide Problems IQ 27.1-27.3, MC 1-14, FIB All